ALGAMED INDUSTRY
MEDICAL DEVICES

Audiometers / Spirometers

Audiometers

AC 50 Professional Audiometer - Air + Bone Conduction

Permits speech audiometry, hearing loss calculations and all types of audiometric tests, both screening and liminar-supraliminar, including diagnostic tests like: PURE TONE, SISI, VOCAL DISCRIMINATION, ABLB, LÜSCHER, WARBLE, STENGER and others. It can be connected to a printer which will produce the audiogram and hearing-loss assessment and to a PC, through an RS-232 C channel, to store and manipulate audiometric tests. AC50 comes complete with air and bone cuffs, patient response with switch, intercom kit (33633) and user manual.

Technical Specifications

- Channels: two
- Transducers: THD 39, B-71 or B-72
- Tone presentation: Continuous - Pulse - Frequency Modulation - Amplitude Modulation - ABLB - SISI
- Tone switching: Normal-Inverted tone switch - With key without noises
- Safety: IEC 601.1, EN 60601.1
- Audiometry: IEC 645.1, IEC 645.2 UNE20-641
- Calibration: ISO 389, ISO 7566, UNE 74-020
- Outputs: Channel RS232 C - For HP - PCL or IBM Graphics printer
- Internal Memory: Capable of storing 50 patients
- Power supply: 220V 50/60 Hz (other options)
- Size: 470mm x 250mm x 95mm
- Weight: 4.5 Kg

AS5-A - Air Conduction

The AS5-A has a microprocessor allowing simple and quick measure audition levels. All the operations can be made by a membrane keyboard and visualized on an alphanumeric LCD display of 16 characters.

Technical Specifications

- Air conduction
- TDH39 phones
- Continuous tone
- Pulse tone
- Signal indicator
- Patient response
- LCD display
- Channels: one
- Power supply: 220 V 50/60 Hz, 15 W
- Dimensions: 342mm x 246mm x 95 mm
- Weight: 2,5 Kg
- Norm: UNE 20-613, IEC 601.1
- Made in Europe
- Frequency Hz: 250; 500; 1000; 2000; 3000; 4000; 6000; 8000
- Max. pure tone ac dB HL: 90; 105; 105; 105; 105; 105; 90; 80
- Max. pure tone bc, dB HL: 40; 50; 50; 50; 50; 50; -; -
- Min. pure tone ac/bc, dB HL: -10; -10; -10; -10; -10; -10; -10; -10
- Level increments, dB HL: 5; 5; 5; 5; 5; 5; 5; 5
- Frequency accuracy: ± 3% at all frequencies
- Levels accuracy: ± 3 dB
- ISO 389, UNE 74-020-78

Standard Accessories

- 1 Air conduction phones THD-39
- 1 Patient response switch
- 1 Test results pad (100 sheet)
- 1 Pen (red, blue)
- User manual (English, Italian, Spanish)

Audiometers

AS5-A - AOM - Air + Bone + Masking

Audiometer AS5-AOM – air + bone conduction has a microprocessor allowing simple and quick measure audition levels. All the operations can be made by a membrane keyboard and visualized on an alphanumeric LCD display of 16 characters.

Technical Specifications

- Air conduction
- TDH39 phones
- Continuous tone
- Pulse tone
- Signal indicator
- Patient response
- LCD display
- Channels: one
- Frequency Hz: 250; 500; 1000; 2000; 3000; 4000; 6000; 8000
- Max. pure tone ac dB HL: 90; 105; 105; 105; 105; 105; 90; 80
- Max. pure tone bc, dB HL: 40; 50; 50; 50; 50; 50; -; -
- Min. pure tone ac/bc, dB HL: -10; -10; -10; -10; -10; -10; -10; -10
- Level increments, dB HL: 5; 5; 5; 5; 5; 5; 5; 5
- Frequency accuracy: ± 3% at all frequencies
- Levels accuracy: ± 3 dB
- ISO 389, UNE 74-020-78
- Power supply: 220 V 50/60 Hz, 15 W
- Dimensions: 342 x 246 x 95 mm
- Weight: 2,5 Kg
- Norm: UNE 20-613, IEC 601.1
- Made in Europe

Standard Accessories

- 1 Air conduction phones THD-39
- 1 Bone conduction phone
- 1 Patient response switch
- 1 Test results pad (100 sheet)
- 1 Pen (red, blue)
- User manual (English, Italian, Spanish)

Audiometers

Audiolab Professional Audiometer

All the technology of a digital 2 channels clinical audiometer in only 250 g. You can perform audiometry test directly on your PC display, save on your database and print when necessary. Audiolab audiometer greatly simplifies masking operations. By selecting tracking function the device transmits to the collateral head phone the noise intensity according to the relative rule. The difference between tone and masking is already pre-set in the table and its values are freely modifiable by the operator. Moreover the complete and innovative database system, due to real time preview of examination, allows immediate vision of the entire diagnostic process performed on the patient. You can easily overlap an existing audiogram to a previously selected one from the relative list. Pc not included.

Technical Specifications

- Clinical audiometer two channels (EN 60645-1) Type 1 A-E (EN 60645-1 - EN 60645-2) - Type 2 A-E (ANSI S 3.6) Number of channels: 2, identical and independent
- Output: ACR, ACL, ACR + L, BCRL, FFR, FFL, FFR+L Masking contra lateral with AC, BC, FF
- Pure tone freq. AC: 125 - 8.000 Hz, BC: 250 - 8.000 Hz, FF: 125 - 8.000 Hz Intensity range (1.000 Hz) - 10 + 120 dB Hl
- Maximum output level PURE TONE 1,000 Hz - Transducer TDH49 ER3A B71 FF - Db HL 120 115 75 100 - NBM 95 95 - 95
- Speech Audiometry - Transducer TDH49 ER3A B71 FF - Db HL 100 100 - 100 - NBM 95 95 - 95
- Vocal material - List of the words installed into internal flash memory - CH1 - CH2 independent inputs, CD1, CD2 two separate VU-Meters, masking noise SM and WM.
- Signal mode: Normal ON - Normal OFF
- Continuous - pulsed
- Warble - frequency modulated ± 5% rate 5 Hz
- ABLB, SISI with increment 1-2-3-4-5 dB, DECAY TEST, BEKESY (only 33605)
- PAT RESPONSE
- TALK – BACK + FORWARD
- Digital output for control Peep-Show
- Accuracy: Resolution 16 Bit; Precision ± 50 ppm; Stability ± 100 ppm; Distorsion < 1% - Ratio signal/noise > 100dB
- Power supply: USB port
- PC system requirements Microsoft Windows XP, Vista

Standards

- EN ISO 389 (1995) - EN ISO 389-2 (1994) ISO 389-3 (1994) - ISO 389-4 (1998) ISO 389-7 (1996)
- Audiometric equipments EN 60645-1 (1994)
- EN 60645 (1997) - EN 60645-4 (1995) - ANSI S3.6 (1996)

Security

- EN 60601 (1990) class II - type B
- EMC - EN 60601-1-2 (2001)

Standard Accessories

- Head phone TDH 49
- Radio EAR B.71 bone vibrator
- Pat response
- USB cable
- CD with software
- Operating manual

Audiolab ML

Same as AUDILAB PROFESSIONAL but without SISI, ABLB BEKESY and DECAY and VOCAL TEST functions. This device is addressed to occupational doctors and general practitioners. All the technology of a digital 2 channels clinical audiometer in only 250 g. You can perform audiometry test directly on your PC display, save on your database and print when necessary. Audiolab audiometer greatly simplifies masking operations. By selecting tracking function the device transmits to the collateral head phone the noise intensity according to the relative rule. The difference between tone and masking is already pre-set in the table and its values are freely modifiable by the operator. Moreover the complete and innovative database system, due to real time preview of examination, allows immediate vision of the entire diagnostic process performed on the patient. You can easily overlap an existing audiogram to a previously selected one from the relative list. Pc not included.

Technical Specifications

- Clinical audiometer two channels (EN 60645-1) Type 1 A-E (EN 60645-1 - EN 60645-2) - Type 2 A-E (ANSI S 3.6) Number of channels: 2, identical and independent
- Output: AC R - AC L - AC R+L - BC R-L - FF R - FF L - FF R+L Masking contra lateral with AC, BC, FF
- Pure tone freq. AC: 125 - 8.000 Hz, BC: 250 - 8.000 Hz, FF: 125 - 8.000 Hz Intensity range (1.000 Hz) - 10 + 120 dB Hl
- Maximum output level PURE TONE 1,000 Hz - Transducer TDH49 ER3A B71 FF - Db HL 120 115 75 100 - NBM 95 95 - 95
- Speech Audiometry - Transducer TDH49 ER3A B71 FF - Db HL 100 100 - 100 - NBM 95 95 - 95
- Vocal material - List of the words installed into internal flash memory - CH1 - CH2 independent inputs, CD1, CD2 two separate VU-Meters, masking noise SM and WM.
- Signal mode: Normal ON - Normal OFF
- Continuous - pulsed
- Warble - frequency modulated ± 5% rate 5 Hz
- PAT RESPONSE
- TALK – BACK + FORWARD
- Digital output for control Peep-Show
- Accuracy: Resolution 16 Bit; Precision ± 50 ppm; Stability ± 100 ppm; Distorsion < 1% - Ratio signal/noise > 100dB
- Power supply: USB port
- PC system requirements Microsoft Windows XP, Vista

Standards

- EN ISO 389 (1995) - EN ISO 389-2 (1994) ISO 389-3 (1994) - ISO 389-4 (1998) ISO 389-7 (1996)
- Audiometric equipments EN 60645-1 (1994)
- EN 60645 (1997) - EN 60645-4 (1995) - ANSI S3.6 (1996)

Security

- EN 60601 (1990) class II - type B
- EMC - EN 60601-1-2 (2001)

Standard Accessories

- Head phone TDH 49
- Radio EAR B.71 bone vibrator
- Pat response
- USB cable
- CD with software
- Operating manual

Audiolite Diagnostic Audiometer

Complete diagnostic audiometer with air-bone-speech masking tests in a stylish design. A top-quality portable product, lightweight and compact as small as an A4 sheet. This audiometer is controlled by an internal microprocessor, and has no mechanical parts subject to wear and tear. AudioLite's built-in display shows audiograms and the intensity and frequency parameters used in tests. Attenuator and frequency knobs operate also as pushbuttons to allow right/left commutation or to store threshold values. Ergonomic research has developed a special touch screen pulse tone switch to avoid any potential disturbing noise caused by mechanical parts. Supplied in a carrying case. Manual in English, Italian and Spanish.

Technical Specifications

- Tests Air Conduction, Bone Conduction, controlateral Masking Nbn, Wn, Speech
- Transducer Air Conduction: TDH49 / ER -3A / ER-5A
- Transducer Bone Conduction: bone vibrator B.71
- Pure tone frequency:
  - AC: 125 Hz - 8000 Hz
  - BC: 250 Hz - 6000 Hz
- Intensity range pure tone:
  - AC: -10 dB HL … +110 dB HL (1000 Hz)
  - BC: -10 dB HL … +65 dB HL (1000 Hz)
- Intensity range masking Nbn: 0 dB EM … +80 dB EM
- Maximum output speech test: AC 95 dB HL - BC 60 dB HL
- Intensity range masking Wn: 0 dB EM … +80 dB EM
- Signal mode: normal ON, normal OFF, pulsed (2,5 Hz, 50%, 200+200 mS), masking with tracking
- External input: socket USB type A to connect pen drive, input CD external
- Norm: EN 60645-1, EN 60645-2

SIEBELSOUND 400-A Audiometer - Air Conduction

The SIBELSOUND 400 is a two-channel digital audiometer based on DSP processing. This audiometer is designed for quick and easy audiometric exploration of hearing thresholds and screening tests, such as supra threshold pure tone tests (FOWLER-ABLB, TONE DECAY, WEBER, LOSCHER, ...).

Main Features

- Air conduction (TDH 39): 125 - 8,000 Hz or HF: 8,000 - 20,000 Hz with optional HDA 200
- Levels: AC (-10 to 120 dB HL) / BC (-10 to 70 dB HL) / speech (-10 to100 dB HL) free field (-10 to 80 dB HL)
- Masking levels (manual or synchronized): NBN AC (-10 to 100 dB HL) NBN BC (-10 to 70 dB HL) white & speech (-10 to 100 dB SPL)
- Tone: continuous, pulse, alternate, amplitude modulation.
- Level increases: 5 (A-AOM), 1 or 5 (SUPRA)
- Frequency precision: ±1%
- Level precision ±2% db SPL
- Automatic calculation of hearing loss and diagnosis (COUNCIL, IM, SS MEXICO, ELI, SAL, KLOCKHOFF, MOH, OTHERS ...)
- Direct USB Communication system: Print directly to a USB printer

Technical Specifications

- Air conduction TDH 39
- User manual English, Italian

Audiometers

SIEBELSOUND 400-AOM - Air + Bone + Masking

The SIBELSOUND 400 is a two-channel digital audiometer based on DSP processing. This audiometer is designed for quick and easy audiometric exploration of hearing thresholds and screening tests, such as supra threshold pure tone tests (FOWLER-ABLB, TONE DECAY, WEBER, LOSCHER, ...).

Main Features

- Air conduction (TDH 39): 125 - 8,000 Hz or HF: 8,000 - 20,000 Hz with optional HDA 200
- Levels: AC (-10 to 120 dB HL) / BC (-10 to 70 dB HL) / speech (-10 to100 dB HL) free field (-10 to 80 dB HL)
- Masking levels (manual or synchronized): NBN AC (-10 to 100 dB HL) NBN BC (-10 to 70 dB HL) white & speech (-10 to 100 dB SPL)
- Tone: continuous, pulse, alternate, amplitude modulation.
- Level increases: 5 (A-AOM), 1 or 5 (SUPRA)
- Frequency precision: ±1%
- Level precision ±2% db SPL
- Automatic calculation of hearing loss and diagnosis (COUNCIL, IM, SS MEXICO, ELI, SAL, KLOCKHOFF, MOH, OTHERS ...)
- Direct USB Communication system: Print directly to a USB printer

Technical Specifications

- Air conduction TDH 39
- Bone conduction B71
- Masking by narrow band
- Data base 1000 tests
- User manual English, Italian

Audiometers

SIEBELSOUND 400-SUPRA - Air + Bone + Mask + Software

The SIBELSOUND 400 is a two-channel digital audiometer based on DSP processing. This audiometer is designed for quick and easy audiometric exploration of hearing thresholds and screening tests, such as supra threshold pure tone tests (FOWLER-ABLB, TONE DECAY, WEBER, LOSCHER, ...).

Main Features

- Air conduction (TDH 39): 125 - 8,000 Hz or HF: 8,000 - 20,000 Hz with optional HDA 200
- Levels: AC (-10 to 120 dB HL) / BC (-10 to 70 dB HL) / speech (-10 to100 dB HL) free field (-10 to 80 dB HL)
- Masking levels (manual or synchronized): NBN AC (-10 to 100 dB HL) NBN BC (-10 to 70 dB HL) white & speech (-10 to 100 dB SPL)
- Tone: continuous, pulse, alternate, amplitude modulation.
- Level increases: 5 (A-AOM), 1 or 5 (SUPRA)
- Frequency precision: ±1%
- Level precision ±2% db SPL
- Automatic calculation of hearing loss and diagnosis (COUNCIL, IM, SS MEXICO, ELI, SAL, KLOCKHOFF, MOH, OTHERS ...)
- Direct USB connection to PC to W50 audiometry software for viewing, storage, transmission, analysis and introduction of audiometric tests Communication system:
- Print directly to a USB printer With W50 audiometry software: Transfer information from the unit's internal database to a PC - Communicate with a PC in real time
- Export patient tests to other management systems (EMR)
- Update the unit's internal firmware

Technical Specifications

- Air conduction TDH 39
- Bone conduction B71
- Masking by narrow band noise & white noise
- Sisi test
- Supraliminar tests
- Speechaudiometry +
- Intercom module
- Musical frequencies
- Data base 1000 tests
- W50 audiometry software
- User manual English, Italian

Spirometers

Datospir-Touch - Disposable Flow Transducer

New digital spirometer with colour touchpad display in three operation modes: primary care, occupational or diagnostic. Internal printer and USB external printer connection. Optional Bluetooth or Ethernet connectivity. QWERTY keyboard. Internal database for more than 6500 tests. Rechargeable battery. Electronic weather station (temperature, humidity and pressure). F/V & V/T curves. 3 best tests selectable and printable. Paediatric incentive and acoustic signal. Quality control (QC prompts and QC Grades). Autodiagnostic (Miller's Quadrant, Kory and Lyons, NHLEP, ATS)

Technical Specifications

- Parameters: FVC, VC, MVV, FEV1, PEF, MEF 25%, MEF 50%, MEF 75%, FEF25-75%, ERV, IRV, TV, IC, MVV, RESP/MIN, FVC (l), FEV0.5 (l), FEV1 (l), FEV3 (l), FEV0.5/FVC (%), FEV1/FVC (%), FEV3/FVC (%), FEV1/VC (%), PEF (l/s), MEF25% (l/s), MEF50% (l/s), MEF75% (l/s), FEF75-85% (l/s), FET25-75% (s), FET100% (s), MEF50%MIF50%, MTT (s), FEV1/FEV0.5, FEV1/PEF (%), MIF50% (l/s), FIVC (l), FIV1 (l), FIV1/FIVC (%), FEV1/FIV1 (%), PIF (l/s), PEF/PIF, Vext. (l), VC (l), TV (l), ERV (l), IRV (l), IC (l), Ti (s), Te (s), Tt (s), Ti/Tt (%), MVV (l/min), Br/Min, MVV ind (l/min), Lung Age, COPD disk
- Predicted value: ERS, NHANES III, Knudson, Platino, Morris, SEPAR (Spain), Crapo, Zapletal, Polgar-Weng, Padilla (Mexico), Gutierrez (Chile), Cruz (Mexico), Golshan (Iran).
- Measuring range: Flow from 0 to ±16 l/s; Volume from 0 to 10
- Flow-Volume accuracy: 5% or 200m/l - 3% or 50 ml whichever greater (ATS, ERS)
- Flow resistance: <0.06 kPa/l/s at 14 l/s (ATS, ERS)
- Resistance at 14 l/s: Turbine = 0.125 kPa/l/s Fleish = 0.095 kPa/lls
- Display: Colour touchpad Display 640x480 pixels / 116.6x87.8 mm
- Safety standard: IEC 601.1 (EN60601), UNE 20-613, IEC 601.1.1 (EN601.1.1)
- Power supply: 125-240 V, 50/60 Hz
- Power 30 VA (approx.)
- Made in Europe

Standard Accessories

- Spirometry software W20
- Nose clip
- 1 reusable mouth piece
- 2 rolls of thermal paper
- 25 disposable transducer
- USB cable
- Rechargeable battery
- Manual: English, Italian, Spanish

Spirometers

Datospir-Touch - Turbine Transducer

New digital spirometer with colour touchpad display in three operation modes: primary care, occupational or diagnostic. Internal printer and USB external printer connection. Optional Bluetooth or Ethernet connectivity. QWERTY keyboard. Internal database for more than 6500 tests. Rechargeable battery. Electronic weather station (temperature, humidity and pressure). F/V & V/T curves. 3 best tests selectable and printable. Paediatric incentive and acoustic signal. Quality control (QC prompts and QC Grades). Autodiagnostic (Miller's Quadrant, Kory and Lyons, NHLEP, ATS)

Technical Specifications

- Parameters: FVC, VC, MVV, FEV1, PEF, MEF 25%, MEF 50%, MEF 75%, FEF25-75%, ERV, IRV, TV, IC, MVV, RESP/MIN, FVC (l), FEV0.5 (l), FEV1 (l), FEV3 (l), FEV0.5/FVC (%), FEV1/FVC (%), FEV3/FVC (%), FEV1/VC (%), PEF (l/s), MEF25% (l/s), MEF50% (l/s), MEF75% (l/s), FEF75-85% (l/s), FET25-75% (s), FET100% (s), MEF50%MIF50%, MTT (s), FEV1/FEV0.5, FEV1/PEF (%), MIF50% (l/s), FIVC (l), FIV1 (l), FIV1/FIVC (%), FEV1/FIV1 (%), PIF (l/s), PEF/PIF, Vext. (l), VC (l), TV (l), ERV (l), IRV (l), IC (l), Ti (s), Te (s), Tt (s), Ti/Tt (%), MVV (l/min), Br/Min, MVV ind (l/min), Lung Age, COPD disk
- Predicted value: ERS, NHANES III, Knudson, Platino, Morris, SEPAR (Spain), Crapo, Zapletal, Polgar-Weng, Padilla (Mexico), Gutierrez (Chile), Cruz (Mexico), Golshan (Iran).
- Measuring range: Flow from 0 to ±16 l/s; Volume from 0 to 10
- Flow-Volume accuracy: 5% or 200m/l - 3% or 50 ml whichever greater (ATS, ERS)
- Flow resistance: <0.06 kPa/l/s at 14 l/s (ATS, ERS)
- Resistance at 14 l/s: Turbine = 0.125 kPa/l/s Fleish = 0.095 kPa/lls
- Display: Colour touchpad Display 640x480 pixels / 116.6x87.8 mm
- Safety standard: IEC 601.1 (EN60601), UNE 20-613, IEC 601.1.1 (EN601.1.1)
- Power supply: 125-240 V, 50/60 Hz
- Power 30 VA (approx.)
- Made in Europe

Standard Accessories

- Spirometry software W20
- 25 carton mouth piece
- Nose clip
- 1 reusable mouth piece
- 2 rolls of thermal paper
- USB cable
- Rechargeable battery
- Manual: English, Italian, Spanish

Spirometers

Gimaspir - 120B

The spirometers GIMASPIR 120 are compact devices based on different types of transducers (Fleisch or Turbine), a wide liquid crystal backlit screen and an internal or external printer. They can incorporate a module for measuring the Maximum inspiratory and expiratory pressures (MIP-MEP) and another module for pulse oximetry measurement (SpO2). An optional software allows connection to a computer in real or deferred time, in order to perform and store the spirometric tests, or to transfer information by other means. All the system is controlled by a microprocessor for the acquisition, calculation and display of alphanumeric and graphic data. Gimaspir comes complete with transducer (Fleisch or Turbine type), 100 disposable mouthpieces, noseclip, 2 rolls of thermal paper, mains power supply, manual.

Technical Specifications

- Type transducer: TURBINE
- FVC, VC, MVV tests in PRE
- Graphic incentive for children
- Configuration programme
- Internal data base for graphics tests: 150 tests
- Internal printer: 112 mm
- External printer connection (Option)
- Data transfer via Internet with PC of: Patients tests, Device check-up data, Software upgrade
- Tests exportation to other management systems
- Calibration for quality control or tests
- SpO2 module, MIP, MEP module: (Option)
- Software under Windows to work with PC, software W20 included (English, Italian, French, Spanish)
- Measuring range: Flow form 0 to ± 16 l/s; volume from 0 to 101
- Flow-Volume accuracy: - 5% or 200ml/s - 3% or 50 ml - whichever greater (ATS, ERS)
- Flow resistance: <0.06 kPa/l/s at 14 l/s (ATS, ERS)
- Resistance at 14 l/s: Turbine = 0.125 KPa/lls; Fleish = 0.095 KPa/lls
- Display: Liquid Crystal Display; 320 x 240 pixels, Area of 120 x 90 mm
- Data input: Alphanumeric membrane keyboard
- Maximum duration and number of manoeuvres: FVC, 25s (5 curves); VC, 45s (5 curves); MVV, 15s (5 curves)
- Safety standards: IEC 601.1 (EN60601.1), UNE 20-613, IEC 601.1.1 (EN601.1.1)
- Power supply: 200-240 V 50/60 Hz (110V on demand)
- Power 25 VA (aprox.)
- Dimensions: 210mm x 297mm x 95mm
- Weight: 1.7 Kg.
- Made in Europe

Standard Accessories

- Transducer (Turbine type)
- 100 disposable mouthpieces
- Noseclip
- 2 rolls of thermal paper,
- Mains power supply
- Manual
- Software

Spirometers

Gimaspir-120C

The spirometers GIMASPIR 120 are compact devices based on different types of transducers (Fleisch or Turbine), a wide liquid crystal backlit screen and an internal or external printer. They can incorporate a module for measuring the Maximum inspiratory and expiratory pressures (MIP-MEP) and another module for pulse oximetry measurement (SpO2). An optional software allows connection to a computer in real or deferred time, in order to perform and store the spirometric tests, or to transfer information by other means. All the system is controlled by a microprocessor for the acquisition, calculation and display of alphanumeric and graphic data.

Standard Accessories

- Transducer (Fleisch or Turbine type)
- 100 disposable mouthpieces
- Noseclip
- 2 rolls of thermal paper
- Mains power supply
- Manual

Spirometers

Gimaspir-120D Fleisch Type

The spirometers GIMASPIR 120 are compact devices based on different types of transducers (Fleisch or Turbine), a wide liquid crystal backlit screen and an internal or external printer. They can incorporate a module for measuring the Maximum inspiratory and expiratory pressures (MIP-MEP) and another module for pulse oximetry measurement (SpO2). An optional software allows connection to a computer in real or deferred time, in order to perform and store the spirometric tests, or to transfer information by other means. All the system is controlled by a microprocessor for the acquisition, calculation and display of alphanumeric and graphic data.

Technical Specifications

- Type transducer: Fleisch
- FVC, VC, MVV tests in PRE
- Bronchoconstriction tests
- Graphic incentive for children
- Configuration programme
- Internal data base for graphics tests: 500 tests
- Internal printer: 112 mm
- External printer connection (Option)
- Data transfer via Internet with PC of: Patients tests, Device check-up data, Software upgrade
- Calibration for quality control or tests
- SpO2 module, MIP, MEP module: (Option)
- Software under Windows to work with PC, software W20 included (English, Italian, French, Spanish)
- Measuring range: Flow form 0 to ± 16 l/s; volume from 0 to 101
- Flow-Volume accuracy: - 5% or 200ml/s - 3% or 50 ml - whichever greater (ATS, ERS)
- Flow resistance: <0.06 kPa/l/s at 14 l/s (ATS, ERS)
- Resistance at 14 l/s: Turbine = 0.125 KPa/lls; Fleish = 0.095 KPa/lls
- Display: Liquid Crystal Display; 320 x 240 pixels, Area of 120 x 90 mm
- Data input: Alphanumeric membrane keyboard
- Maximum duration and number of manoeuvres: FVC, 25s (5 curves); VC, 45s (5 curves); MVV, 15s (5 curves)
- Safety standards: IEC 601.1 (EN60601.1), UNE 20-613, IEC 601.1.1 (EN601.1.1)
- Power supply: 200-240 V 50/60 Hz (110V on demand)
- Power 25 VA (aprox.)
- Dimensions: 210mm x 297mm x 95mm
- Weight: 1.7 Kg.
- Made in Europe

Standard Accessories

- Transducer (Fleisch or Turbine type)
- 100 disposable mouthpieces
- Noseclip
- 2 rolls of thermal paper
- Mains power supply
- Manual

Spirometers

SP10

SP10 is a hand-held equipment for checking lung conditions, adopts the mode of infrared interruption for measuring relative items, and be applicable for hospital, clinique, family for routine test.

Features

- Forced Vital Capacity (FVC), Forced Expired Volume in one second (FEV1), the ratio of FEV1 and FVC (FEV1%), Peak expiratory flow (PEF), 25% flow of the FVC (FEF25), 75% flow of the FVC(FEF75) and average flow between 25% and 75% of the FVC(FEF2575) can be measured. Besides, the tested condition can be shown by the ratio of the measured value and the predicted value.
- Flow rate-volume chart, volume-time chart display.
- Taking on the functions of data memory, deleting, uploading and reviewing.
- Wireless transmission (be applicable for SP10W)
- Display trend curve.
- Scaling(Calibration)
- Information prompts when volume or flow goes beyond the limits.
- Automatic power off when there is no operation in one minute.
- Rechargeable lithium battery and with charging tips.
- Battery power display.

Technical Specifications

- Display mode: 1.8'' colour LCD
- Display resolution: 160 x 128
- Volume range: 0~10L
- Volume accuracy: ±3% or 0.05L (whichever is greater)
- Flow range: 1 L/S ~16L/S
- Flow accuracy: ±10% or ±0.3L/s(whichever is greater)
- Working current: ≤60 mA
- Power supply: DC3.7V rechargeable lithium battery
- Safety classification: internally powered equipment, type BF applied part

Standard Accessories

- User Manual
- USB data line
- Disposable mouthpiece
- Power adapter(optional)
- CD (PC software)
- Nose clip(optional)
- Physical characteristic
- Dimension: 97mm (L) × 89mm (W) × 36mm (H)
- Weight: 150g

Spirometers

Spirobank II

Spirometer with 6,000 spirometry test memory capacity, with possibility to insert patient name, Bluetooth® connection to HP printer. - Internal temperature sensor for automatic BTPS conversion - High resolution/high visibility graphic display - Patient identification by name or ID code - Automatically records the best 3 trials - USB cable, carryng case and software included Winspiropro software functions: - On-line PC connection with icon interface - Real time Flow/Volume and Volume/time curves - Bronchial challenge with FEV1 dose-response - Paediatric incentive animations - Integration with EPR systems - Lung age estimation - Data and graphs export also via E-mail.

Technical Specifications

- Measured parameters: FVC, FEV1, FEV1/FVC%, FEV6, FEV1/FEV6%, FEV3, FEV3/FVC%, PEF, FEF25%, FEF50%, FEF75%, FEF25-75%, FET, Vext, FIVC, FIV1, FIV1/FIVC%, PIF, *FVC, *FEV1, *PEF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rvf, ti, te, ti/t-tot, VT/ti, MVV (* Best value}
- No calibration required
- PRE-POST bronchodilator comparison
- Spirometry interpretation with test quality assurance
- Flow sensor: bi-directional digital turbine
- Flow range: ± 16 L/s
- Volume accuracy: ± 3% or 50 mL
- Flow accuracy: ± 5% or 200 mL/s
- Dynamic resistance at 12 L/s: <0.5 cmH2O L/s
- Connectivity and data transmission: USB,
- Bluetooth®, wireless internal modem for acoustic
- coupling to telephone (telemedicine applications),
- Power Supply: 4 x 1.5 V, AAA battery

Standard Accessories

- USB cable
- Carrying case
- Software

Spirometers

Spirodoc

Easy to handle touch screen display with intuitive icons. Rechargeable high capacity lithium battery. Actigraph and step-counter accelerometer to determine patient position during sleep analysis and distance walked estimation for a 6 min. walk test. Massive user-friendly database patient memory with powerful search, visualization and printing functions. Innovative detachable flow meter ensures a sturdy and durable connection. External connectivity via Bluetooth® or USB cable to PC or printer. Spirodoc can be set-up for different intended uses: Advanced parameter setting for pulmonologists, simplified general practitioner functioning with essential report for screening purposes and one-key device activation for home-care patient monitoring.

Spirometry Features

- FVC, VC, IVC, MVV, PRE-POST BD
- Automatically records all trials
- Internal temperature sensor for automatic BTPS conversion
- Advanced spirometry test interpretation

Pulse Oximetry Features

- Simple and clear SpO2 and Pulse measurement With pletismographic curve
- Sleep disorder detection with events recording
- Six minute walk test with desaturation area index
- Parameters directly shown on the display (min, ma., mean SpO2 and Pulse Rate, ? Index, T90, T89, T88, T5, ODI, NOD, Desaturation Area etc.)

Technical Specifications

- Spirometry printout
- Sleep oximetry printout with desaturation analysis
- Three phase printout of 6 minutes walk test: baseline, walk, recovery

Spirometers

Spirolab III + Software Winspiro Pro - with SpO2 Functions

A really complete spirometry system:
- FVC, VC with breathing pattern plus MVV tests with real time curves
- Over 30 parameters with automatic interpretation and test quality control
- PRE/POST bronchial response protocol with F/V loop comparison
- Up to 8 blows curve on one screen
- Internal database for about 6000 complete tests
- Predicted values with various authors
- Rechargeable battery plus mains power 220V-50 Hz (110V-60 Hz on request
- Portability: weight only 1.9 kg
- User-friendly keyboard with dedicated function keys plus alphanumeric data entry
- Internal temperature sensor for automatic BTPS conversio
- Free upgradable internal software from web, maintaining previously stored data
- Selectable multilanguage internal software (English, Italian, French, German), possibility to download through internet Spanish, Portuguese, Turkish and other languages

Technical Specifications
- Flow/volume range ± 16 L/s
- Volume accuracy: ±3 % or 50 ml
- Flow accuracy: ±5 % or 200 ml/s
- Dynamic resistance: <0.8 cm H2O/l/s
- Dimensions: 310 x 205 x 65 mm
- Parameters: FVC, FEV1, FEV1/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25-75%, FEF25%, FEF50%, FEF75%, FET, Vext, *FVC, *FEV1, *PEF,
- PIF, FIVC, FIV1, FIV1/FIVC%, VC, IVC, ERV, IC, FEV/VC%,VT, VE, Rf, Ti, Te, Ti/T-tot, VT/Ti, MVV *: Best value
- PC system requirements: Microsoft Windows Vista, 2000, ME, XP, 98 (2nd edition)

Standard Accessories
- Carrying case
- Battery charger
- 1 roll thermal paper
- Software Winspiro PRO
- USB port and cable
- Nose clip

Spirometers

SPM-A

SPM-A SPIROMETER is a hand-held equipment for checking lung conditions, adopts the mode of infrared interruption for measuring FVC (Forced Vital Capacity), VC (Vital Capacity), MVV (Maximal Voluntary Ventilation) and relative parameters, and it is applicable for hospital, Clinique for routine test.

Main Functions

- Measure the relative functions of FVC, VC and MVV, display and analyse thirty-three parameters, and display the optimal value from many measurements. Besides, the tested condition can be shown by the ratio of the measured value and the predicted value.
- Real-time display respiration waveform: flow-volume loop and volume-time curve chart.
- Display test time and environment temperature.
- Trend chart display, which provides the trend of each parameter within a period for the tested.
- Calibration function to ensure the test accuracy.
- Power and test indicated.

Performance

- Volume accuracy: ±3% or ±0.05L (whichever is greater)
- Flow range: 1 L/S ~16L/S
- Flow accuracy: ±10% or ±0.3L/s(whichever is greater)
- Working current: ≤50mA
- Power supply: supplied power by USB
- Safety classification: class Ⅱ equipment, type BF applied part

Standard Accessories

- User Manual
- USB cable
- Mouthpiece
- CD (PC software)
- Nose clip

Physical Characteristic

- Dimension: 130mm (L) × 48mm (W) × 70mm(H)
- Weight: 150g

Spirometer Paper

Spirometer Paper - White

Technical Specification

Available in the following formats:

- 110x30mm
- 58x25 mm